Notebook, N-06-08-27.1

Endurance Test. E 18 Cells.

	TIME	TOTAL VOLTS		
8/27/06 8/28	9.00 A.M. 1.00 A.M.	on chg. @ 40 off – 15 hrs.		Run #15.
	1.40 P.M. 6 37.	on dischg. @ 30 20		
8/28 8/29	7.04 P.M. 12.04 A.M.	on chg. @ 30 off – 5 hrs		Run #16.
	12.04 A.M. 3.53 A.M.	on dischg @ 30 20		
8/29	7.00 A.M. 12.00 P.M.	on chg. @ 30 off – 5 hrs,		Run #17
	12.00 P.M. 3.40 P.M.	on dischg. 20	103 71 68 80 115 119 116 116 72 117 115 114 100 112 116 117 115 71 70 114	
8/29 8/30	7.00 P.M. 12.00 A.M.	on chg. @ 30 off – 5 hrs.		Run #18
	1200 A.M. 3.32 A.M.	on dischg. 2.0		
8/30	7.00 AM. 12 03 P.M.	on chg @ 30 off – 5 hrs.		Run #19
	12.03 P.M. 4.47 P.M.	on dischg @ 3.0 15		
8/31	1.00 A.M. 11.03 "	on chg. @ 30 off	–10 hrs	Run # 20
	11.03 " 3 53 P.M.	on discharge 19.8	102 66 61 99 108 114 112 112 68 112 111 109 104 109 112 109 104 45 64 101	
8/31 9/1	7.00 P.M 12.00 A.M.	on chg @ 30 off		Run # 21
	12 00 A.M. 4 02 A.M.	on discharge 2 0		
9/1	7.00 A.M. 12.00 P.M.	on chg. @ 30		Run # 22
	12.00 P.M. 4.05 P.M	on discharge 2.0		

Stood over Sunday + Labor Day.

	TIME	TOTAL VOLTS		
9/4/06	7.00 P.M.	—	on charge @ 30	Run # 23.
	12.00 PM	—	off	
	12.00		on discharge @ 30	
	3.55 AM	20		
9/5/06	7.00 A.M.	—	on charge @ 30	Run # 24
	12..	—	off	
	12.00	—	on discharge @ 30	
	3.38	20		
9/5/06	7.00 P.M.	—	on charge @ 30	Run # 25
	12.00 Am	—	off	
9/6/06	12.00 Am	—	on Discharge @ 30	
	3.56 AM	20		
9/6/06	7:00 A.M.	—	on charge @ 30	Run # 26
	12.00 A.M.	—	off	
	12.06 A.M.	—	on discharge @ 30	
	3.47 P.M.	20	109^5 70 Rev 112 118 120 119 119. 70^5 119 118 116 72 115^5 119 119 119 97 71 118	
9/6/06	7.00 P.M.	—	on charge @ 30	Run # 27
9/7/06	12.00 Am	—	off	
	12.00 Am	—	on Discharge @ 30	
	3 28 A.M.	20		
9/7/06	7.00 A.M.	—	on charge @ 30	Run # 28
	12.00 A.M.	—	off	
	12.00	—	on Discharge @ 30	
	3. 30	20	98 67 — 113 118 120 120 120 66 119 118 114 72 116 119 118^5 118 74 71 118.	
	7.00 P.M.	—	on charge @ 30	Run # 29
9/8/06	12.00 A.M.	—	off.	
	12.00 A.M.		on Discharge @ 30	
	3.25 A.M.	20		
9/8/06	7.00 A.M.	—	on charge @ 30	Run # 30
	12.00 A.M.	—	off	
	12.00 AM	—	on Discharge @ 30	
	4.00		off	

	TIME	TOTAL VOLTS		
9/10/06	8.10 A.M.	—	on charge at 30	
	12.00 M	—	off	Run # 31
	1.10 P.M.	—	on chg. again	
	2.20 P.M.	—	off — 5 hrs.	
	2.20 "	29.2	on discharge @ 30	
	5.47 "	20	78 67 — 116 120 121 120 120 59 120 119 109 73 115 120 120 120 73 72 119	
9/10/06	7.00 P.M	—	on charge @ 30	Run # 32.
	12.00 A.M.	—	off	
	12.00 A.M.	—	on Discharge @ 30	
	3.29. am.	20		
9/11/06	7.00 A.M.	—	on charge	
	12.02 P.M.	—	off	Run # 33
	12.02 P.M.	—	on discharge	
	4.00 P.M.	—	off — no voltmeter — cells many down —	
9/11/06	7.00 P.M.	—	on charge	Run # 34
	12.00 am.	—	off	
9/12/06	12 00 am	—	on Discharge	
	3.01 am	20		
9/12/06	7 00 am.	—	on charge @ 30	Run # 35
	12 00 M.	—	off	
	1.45 P.M.	—	on chg. again	
	6.45 P.M.	—	off — 10 hrs	
	6.45. P.M.	—	discharge @ 30	
	6.45 P.M.	—	on Discharge @ 30	
	11.15 P.M	20	off.	
9/13/06	7.00 am.	—	on charge @ 30	Run # 36
	12.00 M.	—	on discharge	
	3.22 P.M.	20	off	
	7 00 P.M.	—	on charge @ 30	Run # 37
9/14/06	12 00 A.M.	—	off	
	12 00 am.	—	on discharge @ 30	
	3.16 am.	20	off	
	7.00 am.	—	on charge @ 30	Run # 38
	12 05 P.M.	—	on discharge	
	3.20 "	20	74 69 — 115 120 121 120 118 73 120 120 78 73 115 120 121 120 75 103 118	

Run #39

TIME		Total	
9/14/06	7.00 P.M.	—	on charge @ 30
	12.00 A.M.	—	off -
9/15/06	12 00 A.M.	—	on Discharge @ 30
	3.31 A.M.	20	off -

		AMPS																				
9/17/06			Charge #40.																			
	5.35	40	on charge								— 15 hrs. @ 40											
9/18/06	8.35	40	181	182	182	183	182	181	180	181	180	181	182	181	181	181	181	181	181	180	180	181
		AMPS.	Discharge #40.																			
9/18/06	8.38	—	154	154	154	154	154	154	154	153	154	154	154	154	153	153	154	154	154	154	154	154
-	8.40	30	146	145	145	144	144	145	144	144	144	144	144	144	144	143	143	143	143	143	142	142
	.44	29.7	136	137	135	134	136	137	137	138	138	137	137	137	137	136	137	136	136	136	136	136
	.50	29																				
	.50	30.7	134	134	132	132	133	134	134	134	135	134	134	134	134	134	134	134	134	134	133	133
	9.00	30.1	130	131	130	129	130	132	132	132	132	132	132	132	132	131	131	131	131	131	131	131
	.20	30	128	128	127	126	128	129	129	130	130	129	129	129	129	128	128	129	129	129	128	128
	.40	29.7	127	127	126	125	127	128	128	128	128	128	128	128	128	127	127	128	128	128	127	128
	10.02	29.4	126	126	125	124	126	127	127	127	127	127	127	127	126	126	126	127	127	126	126	127
	.20	29.3	125	125	124	123	125	126	126	126	124	126	126	126	126	125	126	126	126	126	126	126
	.41	29.2	124	125	124	123	124	126	126	126	126	126	125	126	125	125	125	126	125	125	125	125
	11.00	29.1	124	124	123	122	124	125	125	126	125	125	125	125	125	124	124	125	125	125	125	125
	.20	29	123	124	122	122	123	124	125	125	125	125	124	125	124	124	124	124	124	124	124	124
	.20	31																				
	.40	30.8	122	123	121	120	122	123	124	124	124	124	123	124	123	123	123	123	123	123	123	123
	12.00	30.5	122	122	120	119	121	123	123	123	124	123	122	123	122	122	122	122	122	122	122	122
	.20	30.1	121	121	118	118	120	122	122	122	123	122	122	122	122	121	121	121	121	121	121	121
	.40	30	119	119	116	115	118	120	120	121	122	121	120	120	120	119	119	120	120	120	119	120
	1.00	29.5	117	117	111	112	116	118	118	118	119	118	118	118	118	116	117	117	118	118	117	118
	.10	29.2	116	114	107	108	114	117	117	117	118	117	117	117	116	115	116	116	116	116	115	116
	.10	31																				
140	.20	30.3	112	107	92	112	111	115	114	114	113	114	114	113	114	112	114	113	113	112	110	112
	.27	29																				
	.27	31																				
145.5	.31	29.3	103	69	55	91	107	112	110	106	72	109	111	108	110	107	111	109	97	78	73	97
147.5	.35	30	72	67	52	84	103	110	103	72	70	100	108	96	105	103	109	103	68	67	66	68
150	.40	"	68	66	51	57	96	107	70	67	70	67	103	67	75	88	105	82	66	67	65	66
152.5	.45	"	64	64	51	50	65	98	66	66	69	65	68	65	66	62	98	65	65	66	63	64
			14851	14901	14907	14913	14916	14880	14884	14886	14891	14892	14900	14923	14924	14926	14931	14919	14918	14914	14902	14896
				150-265 Reg.					150-265 Endo Trmt					150-120 Reg.					150-120 Endo Trmt			

Endurance Test.

Treated E 18 Cells.
Previous History and Regular Runs are in Vol. 9,
"Sow Capacity" Also in Report Book.

DATE	TIME	AMPS	7837	7839	11475	11497	11514	11633	11643	11699	11751	
10/21/07	8.00 A.M.	40	on charge									Run # 151.
	12.00	″	off – 4 hrs.									
	12.00 P.M.	30	on discharge									
	3.59	″	—	—	25	42	38	—	29	—	46	
	4.00 P.M.	40	On charge									Run # 152
	8.00	″	off – 4 hrs									
	8.00 ″	30	on discharge									
	12.00 M.	″	off 4 hrs.									
10-22-07	12.00 M.	40	On charge									Run # 153
	4.00 A.M.	″	off 4 hrs									
	4.00 ″	30	On discharge									
	8.00 ″	32	off 4 hrs.									
	8.00 ″	40	On charge									Run # 154
	12.00 Noon	″	off — 4 hrs.									
	12.00 Noon	30	On Discharge.									
	4.00 P.M.	32	—	—	27	43	35	—	26	—	45	
	4.00 P.M.	40	On charge									Run # 155
	8.00 ″	40	Off Charge 4 hrs									
	8.00 ″	30	On Discharge									
	12.00 M.	″	off Discharge									
10-23-07	12.00 ″	40	On charge									Run # 156
	4.00 A.M.	″	off 4 hrs									
	4.00 ″	30	on discharge									
	8.00 ″	28	off 4 hrs.									
	8.00 ″	40	On charge									Run # 157
	12.00	40	off – 4 hrs.									
	12.00	30	On Discharge									
	3.56	20	—	—	2	48	40	—	—	—	51	
	4.00	40	On Charge									Run # 158
	8.00	″	Off 4 hrs									
	8.00	30	On Discharge									
	12.00	32	off 4 hrs									
10-24-07	12.00	40	on charge									Run # 159
	4.00	″	off charge 4 hrs.									
	4.00	30	on discharge									
	8.00	″	off 4 hrs									
	8.00	40	on charge									Run # 160
	12.00	″	93.2	97	98.2	99	98.2	98.2	100	97.2	95.7	– Temp. in top of cell in °F. Room 75°
	12.00	30	on discharge									
	3.44	29.5	107	112.5	108	109.7	109.5	108.5	109	111.5	104.5	– Temp °F – Room 78°
	″		—	—	10	46	39	—	10	—	51	– P.D.

DATE	TIME	AMPS	7897	7839	11475	11497	11514	11633	11643	11699	11751		
10/24/07	P.M. 4.00	40	On charge									Run # 161	
	8.00	"	Off 4 hrs										
	8.00	30	On Discharge										
	12.00	31	off 4 hrs										
10/25/07	12 00 AM	40	on charge									Run 162.	
	4 00	"	off 4 hrs.										
	4.00	30	on discharge										
	7.57	29	off 4 hrs.										
	8.00	40	on charge									Run 163	
	12.00	"	off 4 hrs										
	1200	30	On Discharge										
	3.48	30	—	—	19	46	40	5	10	—	49		
	4.00	40	On charge									Run # 164	
	8 00	"	Off 4 hrs										
	8.00	"	On Discharge										
	11.56	30	off										
10/26/07	12.00	40.	on charge									Run # 165	⑮
	4.00	"	off 4 hrs.										
	4.00	30	on discharge										
	7.51^5	30	off.										
	8.00	40	on charge									Run # 166	
	12.00	40	off 4 hrs.										
	12.00	30	On discharge										
	3.56	30	—	—	11	45	39	—	10	—	48		
10/28/07	A.M. 8.00	40	On charge									Run # 167	
	12.00	"	off — 4 hrs.										
	1200	30	On Discharge										
	3.35	30			29	46	42	·	2	·	50		
	PM 4.00	40	On charge									Run # 168	
	8.00	"	Off 4 hrs										
	8.00	30	On Discharge										
	11.43	"	off Discharge										
10-29-07.	12.00 AM	40	On charge									Run # 169.	
	4.00	"	off 4 hrs										
	4.00	30	on Discharge										
	7.49	"	off										
	8.00 AM	40	on charge									Run # 170	
	1200	"	96	98	99^5	100^2	99^5	97^7	99^5	97^5	96^2	Temp ·7 – Room 73°	⑳
	12.00 PM	30	On Discharge										
	3.53	30	105	109^5	104	101^5	101	106	105^5	104^7	99	Temp. 07 Room. 76^2 °	
	4.00 PM	40	On Charge									Run # 171.	
	8.00	40	Off 4 hrs.										
	8.00	30	On discharge										
	11.51	30	off charge										

DATE	TIME	AMPS	7837	7839	11475	11497	11514	11633	11643	11699	11751	
10/30/07	12.15 AM	40	On charge									Run #172
	4.15	"	off 4 hrs.									
	4.15 AM	30	on Discharge									
	8.01	"	off									
	8.02 AM	40	On charge									Run #173
	12.00	"										
	12.00 PM	30	On Discharge									
	3.44	30		-	20	46	40		10	-	47	
	4.00 PM	40	On Charge									Run # 174
	8.00	"	off 4 hrs.									
	8.00	30	On Discharge									
	11.47	"	off									
10-31-07	12.00	40	on charge									Run #175 ㉕
	4.00	"	off 4 hrs.									
	4.00	30	on discharge									
	7.38	"	off.									

Endurance Test.

New E18 Cells.

#22763 - 21% KOH - Has had 22 runs.
22761 - 21% + 30g SiOH per l. - " 25 "

Treated S.C. Cells.

#12372, 12854, 14306 } 21% KOH + 15 g. SiOH per l. Had 19 runs.

14311, 14375, 14563 } 21% KOH Reg. Had 19 runs.

Give 50 runs, charging 4 hrs. @ 40 and discharging @ 30 4 hrs. or less.

W.E.H.

Date	Time	Amp.	Remarks	22761	22762	14372	12854	14306	14311	14375	14563	
12/2/07	4 00	40	On charge									Charge #1 12/2/07
	8 00	"	Off 4 hrs									
	8 00	30	On discharge									
	12 00	30		108	136	42	33	40	47	—	54	
12/3-07	12 10	40	On charge									Charge # 2 12/3/07
	4 10	40	off 4 hrs									
	4 10	30	on Discharge									
	8 00	"	off									
	8 00	40	On charge									Charge # 3 12/3/07
	12 00	"	Off 4 hrs									
	12 00	30	On discharge									
	4 00	30		116	110	46	37	46	52	—	58	
	4 00	40	On charge									Charge # 4 12/3/07
	8 00	40	Off 4 hrs									
	8 00	30	On discharge									
	12 00	30	off discharge									
12-4-07	12 00	40	On Charge									Charge # 5 12-4-07
	4 00	40	off 4 hrs.									
	4 00	30	On discharge									
	8 00	"	off discharge									
	8 00	40	On Charge									Charge #6 12-4-07
	12 00	40	off 4 hrs									
	12 00	30	On discharge									
	4 00	30		113	63	41	20	41	44	—	48	
	4 00	40	On charge									Charge #7 12/4/07
	8 00	40	Off 4 hrs									
	8 00	30	On discharge									
	12 00	30	off discharge									
12-5-07	12 00	40	On charge									Charge #8 12/4/07
	4 00	"	off 4 hrs									
	4 00	30	On Discharge									
	8 00	"	off Discharge									
	8 00	40	On Charge									Charge #9 12/5-07
	12 00	40	off									
	12 00	30	On Discharge									
	4 00	32		111	108	40	30	42	49		54	
	4 00	40	On charge									Charge #10 12/5/07
	8 00	40	Off 4 hrs									
	8 00	30	On discharge									
	12 00	"	off discharge									
12-6-07	12 00	40	On charge									Charge #11 12/6/07
	4 00	"	off 4 hrs									
	4 00	30	On Discharge.									
	8 00	"	off Discharge									

Date	TIME	AMP.	22761	22762	12372	12854	14306	14311	14335	14563	14136	14615	14626	14640	14642	
11/6/07	8.00 A.M.	40	On charge													Charge # 12
	12.00	"	off													12/6/07
	12 00	30	On Discharge													
	4 00	31.	12	72	43	20	40	44		48						
			Stood over Sat & Sunday													
12/9/07	8.00 A.M.	40	On charge													Charge # 13
	12.00	"	off													
	12 00	30	On Discharge													12/9/07
	4 00	30	111	59	42	-	32	40	=	35						
	4 00	40	On charge													Charge #14
	8 00	40	off													12/9/07
			Cell # 14106 - 14642 put in for this run. W.Z.N.													
	8 00	30	On discharge													
	12 00	"	off													
12/10/07	12 00	40	On charge													Charge #15
	4 00	"	off 4 hrs													
	4 00	30	On discharge													
	8 00	"	off "													
12/10/07	8 00	40	On charge													Charge #16
	12 00	"	off													
	12 00	30	On Discharge													
	4 00	30	111	31	38	-	31	36	-	25	-	-	90	33	102	
	4 00	40	On charge													Charge #17
	8 00	40	Off 4 hrs													
	8 00	30	On discharge													
	12 00	"	off													
12-11-1907	12 00	40	On Charge													Charge #18
	4 00	"	off 4 hrs Chg.													
	4 00	30	On Discharge													
	8 00	"	off													
	8 00	40	On charge													Charge #19
	11.58	"	off													
	12 00	30	On Discharge													
	4 00	32	109	-	36	-	30	34	-	23	-	-	71	-	101	
	4 00	40	On charge													Charge #20
	8 00	40	Off charge													
	8 00	30	On discharge													
	12 00	30	off													

DATE	TIME	AMPS		22761	22763	12372	12854	14306	14311	14375	14563	14106	14615	14622	14640	14644	
12-12-07	12 00	40	On Charge														Charge #21
	4 00	"	off 4 hrs.														
	4 00	30	On Discharge														
	8 00	"	off														
	8 00	40	On charge														Charge #22.
	11 55	40	off														
	12 00	30	On Discharge														
	4 00	30		111		41		33	38		30	-	-	84	30	104	
	4 00	40	On Charge														Charge #23
	8 00	40	off 4 hrs														
	8 00	30	On discharge														
	12 00	"	off														
12-13-07	12 00	40	On charge														Charge #24
	4 00	40	off 4 hrs														
	4 00	30	On Discharge														
	8 00	"	off														
	8 00	40	On Charge														Charge #25 12/13/07
	12 00	"	off														
	12 00	30	On Discharge														
	4 05	30		110	5 —	39	6	34	40	—	42	-	-	100	31	103	
			Stood over Sat & Sunday.														
12/16/07	8 00	40	On charge														Charge #26 12/16/07
	12 00	40	off														
	12 00	30	On Discharge														
	4 00	30		101		39		23	40		35	-		95		103	
	4 00	40	On charge														Charge #27
	8 00	40	Off 4 hrs														
	8 00	30	On discharge,														
	12 00	"	off "														
12-17-07.	12 00	40	On Charge														Charge #28
	4 00		4 hrs.														
	4 00	30	On discharge														
	8 00	"	off														
	8 00	40	On Charge														Charge #29 12/17/07
	11 57 5	40	off														
	12 00	30	On Discharge														
	4 00	30		111	45	39	12	39 5	43	-	47	-	-	103	38	103	
	4 00	40	On Charge														Charge #30
	8 00	40.	Off 4 hrs														
	8 00	30	On discharge.														
	12 00	"	off														

DATE	TIME	AMPS	22761	22763	12372	12854	14306	14311	14375	14563	14106	14616	14626	14640	14642	
12-18-07	1200	40	On Charge													Charge #31
	400	40	off 4 hrs.													
	400	30	On Discharge													
	800	"	off													
	800	40	On charge													Charge #32
	11.56	"	off													
	1200	30	On Discharge													
	400	"	110	-	39	16.	39	40	L	43	-	-	105	36	103	
	400	40	On Charge													Charge #33
	800	"	off 4 hrs.													
	800	30	On Discharge.													
	1200	"														
12-19-07	1200	40	On charge													Charge #34
	400	"	off 4 hrs.													
	400	30	On Discharge													
	800	"	off													
	800	40	On charge													Charge #35
	1200	"	off													
	1200	30	On Discharge													
	400	30	107	-	37	10	34	34	-	36	-	-	99	14	100	
	400	40	On charge													Charge #36
	1800	"	Off 4 hrs													
	800	30	On discharge													
	1200	"	off													
12-20-07	1200	40	On charge													Charge #37
	400	"	off 4 hrs.													
	400	30	On Discharge													
	803	"	off													
	8.03.	40	On Charge													Charge #38
	1200	40	Off 4 hrs													
	1200	30	On discharge													
	400	30	109	-	39	10	6	40	L	43	-	-	104	32	103	
			Stood over Saturday & Sunday													
12/23/07	800	40	On Charge													Charge #39
	1200	"	off													
	1200	30	On Discharge													
	400	30	111	-	40	-	30	36	-	39	-	-	98	-	103	
	400	40	On charge													Charge #40
	800	40	Off 4 hrs													
	800	30	On discharge													
	1200	"	off													

DATE	TIME	AMPS	22761	22763	12372	12854	14306	14311	14325	14563	14106	14625	14628	14641	14642	
12-24-07	1200	40	On Charge													Charge #41
	400	"	off 4 hrs (													
	400	30	On Discharge													
	800	"	off													
	800	40	On charge													Charge #42
	1200	"	off 4 hrs -													
	1200	30	On Discharge													
	4.00	28	103	-	40	-	28	31	[illegible]	21	—	-	86	-	103	
			Stood over Wednesday. (Xmas)													
12-26-07	800	40	On charge													Charge #43
	1200	"	off - 4 hrs.													
	1200	30	On Discharge													
	400	"	100	-	30	-	16	18	-	-		-	56	[illegible]	97	
	400	40	on charge													charge #44
	800	"	off 4 hrs.													
	800	30	on Discharge													
	1200	"	off													
12-27-07.	1200	40	on charge													charge #45
	400	"	off 4 hrs.													
	400	30	On Discharge													
	800	"	off													
	800	40	on charge													charge #46
	1200	40	Off 4 hrs.													
	1200	30	On Discharge													
	400	30	102	-	33	-	16	22	-	-	-	-	54	-	97	
			Stood over Sat & Sunday.													
12/30/07	800	40	On charge													charge #47.
	1200	"	off - 4 hrs.													
	1200	30	On Discharge													
	400	32	102	-	33	-	20	24	-	-	-		56	-	99	
	400	40	On charge													Charge #48
	800	40	Off 4 hrs													
	800	30	On discharge													
	1200	"	off													
12-31-07	1200	40	On charge													charge #49
	400		off 4 hrs.													
	400	30	On Discharge													
	800	"	off													
	800	40	on charge													charge #50
	1200	40	off - 4 hrs -													
	1200	30	On Discharge													
	400	36	103	-	25	-	12	18	-	-	-	-	65	-	93.	